IN THE CLAIMS:

What Is Claimed Is:

1.   A network having a plurality of nodes for exchanging information, comprising:

a master node within said plurality of nodes, said master node including a primary server to run a centralized system service; and

a system services coordinator on each of said plurality of nodes to coordinate a function regarding said centralized system service.

2.   The network of claim 1, comprising:

wherein said plurality of nodes includes a vice node, said vice node including a secondary server to run said centralized system service.

3.   The network of claim 1, wherein said master node communicates via a carrier grade transport protocol.

4.   The network of claim 1, wherein said master node includes a cluster membership monitor, said cluster membership monitor providing instructions to said system services coordinator.

5.   The network of claim 1, wherein said function is an initialization function.

6.   The network of claim 1, wherein said function comprises a shut down function.

7.   The network of claim 1, wherein said function comprising a promote function.

8.   The network of claim 1, wherein said function comprises a demote function.

9.   The network of claim 1, wherein said function comprises a disqualify function.

10.   The network of claim 1, wherein said function comprising a qualify function.

11.   The network of claim 1, wherein said plurality of nodes includes a master-eligible node.

12.   The network of claim 1, wherein said system services coordinator registers callback actions for said centralized system service.

13.   The network of claim 1, wherein said centralized system service registers with said system services coordinator.

14.   A node within a network of nodes for exchanging information, comprising:

        a centralized system service to run on a primary server, and

        a system services coordinator to coordinate a function regarding said centralized system service.

15.   The node of claim 14, further comprising a cluster membership monitor to provide instructions to said system services coordinator.

16.   The node of claim 14, wherein said centralized system service comprises a naming service.

17. The node of claim 14, wherein said centralized system service comprises a component role assignment manager.

18. The node of claim 14, wherein said centralized system service communicates via a carrier grade transport protocol.

19. The node of claim 14, further comprising a high availability level and an operating system level.

20. The node of claim 19, wherein said system service coordinator resides in said high availability level.

21. The node of claim 14, wherein said function comprises an initialization function.

22. The node of claim 14, wherein said function comprises a shut down function.

23. The node of claim 14, wherein said function comprises a promote function.

24. The node of claim 14, wherein said function comprises a demote function.

25. The node of claim 14, wherein said function comprises a disqualify function.

26. The node of claim 14, wherein said function comprises a qualify function.

27. The node of claim 14, wherein said function includes a callback sequence.

28. A network of a plurality of nodes, comprising:

a master node having a primary server to run a centralized system service;

a vice node having a secondary server to run said centralized system service; and

a system services coordinator to coordinate functions regarding said centralized system service at said plurality of nodes.

29. The network of claim 28, wherein said secondary server mirrors said primary server.

30. The network of claim 28, wherein said centralized system service comprises a component role assignment manager to coordinate an application at said plurality of nodes.

31. A method for coordinating a system service within a network having a plurality of nodes, comprising:

receiving a request at a system services coordinator, said system services coordinator having a component at each of said plurality of nodes;

using a callback sequence for performing a function at one of said plurality of nodes in response to said request; and

reacting to said function by said system services coordinator on said node and communicating said reaction to said system services coordinator.

32. The method of claim 31, wherein said using includes invoking callback functions having levels, said levels correlating to completing stages of said callback functions.

33. The method of claim 32, further comprising receiving said levels at said system services coordinator as said stages are completed.

34. The method of claim 31, further comprising registering said callback sequence with said system services coordinator.

35. The method of claim 34, wherein said callback sequence is registered from said system services coordinator.

36. The method of claim 31, further comprising transitioning said system services according to said callback sequence.

37. The method of claim 31, further comprising interfacing said system services with said plurality of nodes.

38. A method for coordinating a function for a system service server on a node, comprising:

receiving a callback sequence at said system service server from a system services coordinator;

determining levels of said callback sequence, said levels correlating to stages of completing said function;

receiving said levels at said system services coordinator; and

publishing events from said node by said system services coordinator correlating to said received levels.

39.   The method of claim 38, further comprising communicating said levels to said primary server.

40.   The method of claim 38, wherein said system service server resides on a master node, and said system services coordinator interfaces with said master node.

41.   A method for initializing a node within a network having centralized system services, comprising:

registering said centralized system services on said node with a system services coordinator;

triggering an initialization function having levels; and

receiving notification at said system services coordinator for completing said levels.

42.   The method of claim 41, further comprising retrieving boot parameters for said node.

43.   The method of claim 41, further comprising starting up an operating system on said node.

44.   The method of claim 41, further comprising loading a configuration table of said network.

45.   The method of claim 41, further comprising participating in formation protocol for said network by sending information about said node.

46.   The method of claim 41, further comprising initializing non-centralized system services on said node by registering said non-centralized system services with said system services coordinator.

47.   A method for coordinating initialization in a network having a plurality of nodes, comprising:

registering centralized system services within said network with a system services coordinator;

electing a master node within said network and sending information on said master node to said plurality of nodes;

using callbacks registered at said system services coordinator to trigger initialization levels at said plurality of nodes; and

informing said plurality of nodes when said master node completes said initialization levels via said system services coordinator.

48.   The method of claim 47, further comprising registering said system services coordinator with a membership monitor within said network.

49.   The method of claim 48, wherein said electing includes claiming said master node by said membership monitor.

50.   The method of claim 47, further comprising reading a configuration table of said network.

51.   The method of claim 47, further comprising electing a vice node within said network.

52. A method for switching over a master node having primary servers for centralized system services within a network having a plurality of nodes, comprising:

informing a system services coordinator on said master node of a loss of master eligibility on said master node;

invoking switchover callbacks registered at said system services coordinator; and

transferring states of said primary servers to secondary servers for said centralized system services at a vice node.

53. The method of claim 52, further comprising updating said plurality of nodes on said transferred states via said system services coordinator.

54. The method of claim 52, further comprising updating non-centralized system services via said system services coordinator.

55. The method of claim 52, further comprising triggering a switchover condition on said master node.

56. A method for failing a master node having primary servers for centralized system services within a network having a plurality of nodes, comprising:

claiming mastership of said network at a vice node and informing said centralized system services via a system services coordinator; and

recovering states of said primary servers on said master node to secondary servers of said centralized system services on said vice node.

57.   The method of claim 56, further comprising detecting that said primary servers have been transferred..

58.   The method of claim 56, further comprising synchronizing a reconnection to said centralized system services at said plurality of nodes via said system services coordinator.

59.   The method of claim 56, further comprising detecting a failover condition at said master node.

60.   The method of claim 56, further comprising electing another vice node.

61.   A method for demoting a master eligible node within a network for exchanging information, comprising:

initiating a demote callback sequence from a system services coordinator;

transitioning centralized system services servers on said node to a spare state; and

updating said system services coordinator.

62.   The method of claim 61, further comprising triggering a switchover on said node.

63.   The method of claim 61, further comprising detecting a failover condition on said node.

64.   The method of claim 61, further comprising notifying said system services coordinator that said node is to be demoted.

64.   A method for promoting a node to be master eligible within a network for exchanging information, comprising:

initiating a promote callback sequence from a system services coordinator;

transitioning centralized system services servers on said node to an availability state, and

updating said system services coordinator.

65.   The method of claim 64, further comprising notifying said system services coordinator that said node is to be promoted.

66.   A method for disqualifying a node from being master eligible within a network for exchanging information, comprising:

initiating a disqualify callback sequence from a system services coordinator;

setting a master eligible attribute at said node; and

transitioning centralized system servers on said node to an offline state.

67.   The method of claim 66, further comprising notifying said system services coordinator that said node is to be disqualified.

68.   A method for qualifying a node to be master eligible within a network for exchanging information, comprising:

initiating a qualify callback sequence from a system services coordinator;

setting a master eligible attribute at said node; and

transitioning centralized system servers on said node to a spare state.

69.   The method of claim 68, further comprising notifying said system services coordinator that said node is to be promoted.

70.   A method for shutting down a node within a network for exchanging information, comprising:

invoking callbacks of centralized system services on said node by a system services coordinator;

requesting said node be removed from said network by said system services coordinator; and

terminating said system services coordinator.

71.   The method of claim 70, further comprising terminating said centralized system services when all callbacks are received at said system services coordinator.

72.   The method of claim 70, further comprising shutting down said operating system at said node.

73.   The method of claim 70, wherein said node is a master node within said network.

74.   The method of claim 73, further comprising initiating a switchover on said master node.

75.   The method of claim 70, wherein said node is a vice node within said network.

76. The method of claim 75, further comprising initializing another vice node.

77. The method of claim 70, further comprising rebooting said node.

78. A method for removing a node from a network, comprising:

initiating a shutdown callback sequence from a system services coordinator, wherein said shutdown callback sequence includes levels;

notifying said system services as said levels are completed and terminating centralized system services on said node; and

terminating said system service coordinator.

79. The method of claim 78, further comprising requesting said node be deleted from said network.

80. A method for coordinating centralized system services on a node within a network, said network exchanging information with said node, comprising:

initializing said node by an initialization function according to a system services coordinator;

invoking a callback sequence at said node by said system services coordinator;

updating said centralized system services and non-centralized system services with information received by said system services coordinator;

communicating with a master node within said network and synchronizing said initialization function with said master node;

determining a change in configuration of said node within said network; and

executing a function at said node according to said system services coordinator, said function responding to said change in configuration.

81. The method of claim 80, further comprising notifying a membership monitor of said network of said change of configuration by said system services coordinator.

82. A computer program product comprising a computer useable medium having computer readable code embodied therein for coordinating a system service within a network having a plurality of nodes, the computer program product adapted when run on a computer to execute steps, including:

receiving a request at a system services coordinator, said system services coordinator having a component at each of said plurality of nodes;

using a callback sequence for performing a function at one of said plurality of nodes in response to said request; and

reacting to said function by said system service on said node and communicating said reaction to said system services coordinator.

83. A computer program product comprising a computer useable medium having computer readable code embodied therein for coordinating a function for a system on a node, the computer program product adapted when run on a computer to execute steps including:

receiving a callback sequence at said system service from a system

services coordinator, said system services coordinator in

communication with a primary server of said system service;

determining levels of said callback sequence, said levels correlating to

stages of completing said function;

receiving said levels at said system services coordinator; and

publishing events from said node by said system services coordinator

correlating to said received levels.

84. A computer program product comprising a computer useable medium

having computer readable code embodied therein for initializing a node within a

network having centralized system services, the computer program product adapted

when run on a computer to execute steps including:

registering said centralized system services on said node with a system

services coordinator;

triggering an initialization function having levels; and

receiving notification at said system services coordinator for

completing said levels.

85. A computer program product comprising a computer useable medium

having computer readable code embodied therein for coordinating initialization in a

network having a plurality of nodes, the computer program product adapted when

run on a computer to execute steps including:

registering centralized system services within said network with a system services coordinator;

electing a master node within said network and sending information on said master node to said plurality of nodes;

using callbacks registered at said system services coordinator to trigger initialization levels at said plurality of nodes; and

informing said plurality of nodes when said master node completes said initialization levels via said system services coordinator.

86.   A computer program product comprising a computer useable medium having computer readable code embodied therein for switching over a master node having primary servers for centralized system services within a network having a plurality of nodes, the computer program product adapted when run on a computer to execute steps including:

informing a system services coordinator on said master node of a loss of master eligibility on said master node;

invoking switchover callbacks registered at said system services coordinator; and

transferring states of said primary servers to secondary servers for said centralized system services at a vice node.

87.   A computer program product comprising a computer useable medium having computer readable code embodied therein for failing a master node having primary servers for centralized system services within a network having a plurality

of nodes, the computer program product adapted when run on a computer to execute steps including:

claiming mastership of said network at a vice node and informing said centralized system services via a system services coordinator; and

transferring states of said primary servers on said master node to secondary servers of said centralized system services on said vice node.

88. A computer program product comprising a computer useable medium having computer readable code embodied therein for demoting a master eligible node within a network for exchanging information, the computer program product adapted when run a computer to execute steps including:

initiating a demote callback sequence from a system services coordinator;

transitioning centralized system services servers on said node to a spare state; and

updating said system services coordinator.

89. A computer program product comprising a computer useable medium having computer readable code embodied therein for promoting a node to be master eligible within a network for exchanging information, the computer program product adapted when run on a computer to execute steps including:

initiating a promote callback sequence from a system services coordinator;

transitioning centralized system services servers on said node to an

availability state, and

updating said system services coordinator.

90.   A computer program product comprising a computer useable medium

having computer readable code embodied therein for disqualifying a node from

being master eligible within a network for exchanging information, the computer

program product adapted when run on a computer to execute steps including:

initiating a disqualify callback sequence from a system services

coordinator;

setting a master eligible attribute at said node; and

transitioning centralized system servers on said node to an offline

state.

91.   A computer program product comprising a computer useable medium

having computer readable code embodied therein for qualifying a node to be master

eligible within a network of exchanging information, the computer program product

adapted when run on a computer to execute steps including:

initiating a qualify callback sequence from a system services coordinator;

setting a master eligible attribute at said node; and

transitioning centralized system servers on said node to a spare state.

92.   A computer program product comprising a computer useable medium

having computer readable code embodied therein for shutting down a node within a

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network for exchanging information, the computer program product adapted when run on a computer to execute steps including:

invoking callbacks of centralized system services on said node by a system services coordinator;

requesting said node be removed from said network by said system services coordinator; and

terminating said system services coordinator.

93. A computer program product comprising a computer useable medium having computer readable code embodied therein for removing a node from a network, the computer program product adapted when run on a computer to execute steps including:

initiating a shutdown callback sequence from a system services coordinator, wherein said shutdown callback sequence includes levels;

notifying said system services as said levels are completed and terminating centralized system services on said node; and

terminating said system service coordinator.

94. A computer program product comprising a computer useable medium having computer readable code embodied therein for coordinating centralized system services on a node within a network, said network exchanging information with said node, the computer program product adapted when run on a computer to execute steps including:

initializing said node by an initialization function according to a

system services coordinator;

invoking a callback sequence at said node by said system services

coordinator;

updating said centralized system services and non-centralized system

services with information received by said system services coordinator;

communicating with a master node within said network and

synchronizing said initialization function with said master node;

determining a change in configuration of said node within said

network; and

executing a function at said node according to said system services

coordinator, said function responding to said change in configuration.